



KYOTO UNIVERSITY
Global COE Program

INTEGRATED
MATERIALS SCIENCE

グローバルCOE「統合物質科学」セミナー

演題

"Which structure for very small nanoparticles?"

講師

Prof. Jean-Christophe VALMALETTE

Institut Matériaux Microélectronique et Nanosciences de Provence
IM2NP CNRS-UMR 6242
Université du Sud Toulon Var, France

日時
会場

平成21年10月29日 (木) 13:00~14:30
総合実験研究棟 講義室CB207

Since 2003, Prof. J. C. Valmalette has been working on the mechanism of *self-assembled nano-crystals* of CuC_2O_4 , leading to 2D and 3D mesocrystals. The architecture of these assemblies strongly depends on crystallographic features and the use of polymeric additives during synthesis. He was involved in several projects including STREP (EU Programs) in relation with the downscaling in microelectronics.

Starting in 2005, he coordinated the *Nanoscale Raman Project* for the IM2NP Institute in collaboration with microelectronics companies. His group is now using a Scanning Probe Microscope associated with a Raman spectrometer in a lateral configuration. This project is focused on the enhancement effects obtained by SERS substrates (applied to Self-Assembled Monolayers) and tailored probes (optical nano-antenna) obtained by bottom-up approaches. The first papers were published on the depolarizing effects induced by the AFM tips in TERS (Tip Enhanced Raman Spectroscopy) on Si(100) crystals.

Prof. J. C. Valmalette is an expert on Raman spectroscopy, phase transitions, optical properties of materials and more generally on the relationships between structures and properties in solids.

連絡先

島川祐一 (内線3110)、磯田正二 (内線3051)